

**MEDICAL IMPLANT DEVICE FOR ELECTROSTIMULATION
USING DISCRETE MICRO-ELECTRODES**

Abstract

An improved medical implant device is provided which has a plurality of micro-electrodes. The use of a plurality of micro-electrodes allows a clinically effective electrical stimulation pathway to be selected once the implant is positioned within or adjacent to the tissue to be treated even if the implant is not optimally placed or located. Thus, in cases where the implant is not optimally placed, it is not necessary to remove the implant and then reposition it within or adjacent to the tissue to be treated, thereby reducing stress to the patient caused by additional surgery. Moreover, using the micro-electrodes of this invention, directional electrostimulation can be provided to the tissue to be treated. Implant devices with a plurality of micro-electrodes are provided which are especially adapted for use in reducing the frequency and/or severity of neurological tremors. Other implant devices having micro-electrodes are provided which are especially adapted for electrostimulation and/or electrical monitoring of endo-abdominal tissue or viscera.